

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

Dirk Kempthorne, Governor Toni Hardesty, Director

February 28, 2006

#### Certified Mail No. 7005 1160 0000 1550 0665

Scott Clelland Western Farm Service 473 Hankins Road South Kimberly, ID 83341-5095

RE:

Facility ID No. 027-00089, Western Farm Service, Caldwell

Final Permit Letter

Dear Mr. Clelland:

The Idaho Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) Number P-050028 for Western Farm Service, Caldwell facility, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on May 16, 2005. This permit is effective immediately. This permit does not release Western Farm Service from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

A representative of the Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator

Air Quality Division

MB/SYC/sd

Permit No. P-050028

**Enclosures** 



# Air Quality PERMIT TO CONSTRUCT

# State of Idaho Department of Environmental Quality

**PERMIT No.:** P-050028

**FACILITY ID No.: 027-00089** 

AQCR: 64

CLASS: SM

SIC: 2874

**ZONE**: 11

**UTM COORDINATE (km):** 532.0, 4834.0

#### 1. PERMITTEE

Western Farm Service, a Division of Agrium U.S., Inc.

#### 2. PROJECT

Initial Permit to Construct - Caldwell Facility

3. MAILING ADDRESS 473 Hankins Road South	CITY Kimberly	STATE ID	<b>ZIP</b> 83341-5095	
4. FACILITY CONTACT Scott Clelland	TITLE SRD EH&S Manager	<b>TELEPHONE</b> (208) 737-1007 or (208) 459-4601		
5. RESPONSIBLE OFFICIAL Scott Clelland TITLE SRD EH&S Manager		TELEPHONI (208) 737-100	E 7 or (208) 459-4601	
6. EXACT PLANT LOCATION 10257 Highway 20-26, Caldwell, Idaho		COUNTY Canyon		

# 7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Agricultural retail services/ Fertilizer manufacturing

#### 8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

TONÍ HARDESTY, DIRECTOR DEPARTMENT OF ENVIRONMENTAL QUALITY DATE ISSUED:

February 28, 2006

# **Table of Contents**

ACRO	NYMS, UNITS, AND CHEMICAL NOMENCLATURE	. 3
1.	PERMIT TO CONSTRUCT SCOPE	. 4
2.	REACTOR NO.1 (10-34-0 REACTOR)	. 5
3.	PERMIT TO CONSTRUCT GENERAL PROVISIONS	. 7

# Acronyms, Units, and Chemical Nomenclature

AQCR Air Quality Control Region

DEQ Department of Environmental Quality

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance with

the Idaho Administrative Procedures Act

km kilometer

O&M Operations and Maintenance

PM<sub>10</sub> particulate matter with an aerodynamic diameter less than or equal to a nominal 10

micrometers

PTC permit to construct

SIC Standard Industrial Classification

SM synthetic minor

UTM Universal Transverse Mercator

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050028					
Permittee:	Western Farm Service	Facility ID No. 027-00089	Date Issued:	February 28 2006	
Location:	Caldwell, Idaho	Facinity 110 110. 027-00089	Date Issued.	1 cordary 20 2000	

## 1. PERMIT TO CONSTRUCT SCOPE

# **Purpose**

1.1 This permit to construct (PTC) is the facility's initial permit. This PTC regulates emissions from Reactor No.1 (10-34-0 Reactor). The reactor was constructed in the winter of 1985 - 1986 at the facility without first obtaining a PTC. The application for this PTC was submitted by the permittee pursuant to the February 15, 2005 Consent Order No. E-030014 to resolve certain regulatory violations alleged by DEQ.

# Regulated Sources

Table 1.1 lists all sources of emissions regulated in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	Reactor No.1 (10-34-0 Reactor)	The wet scrubber (a packed bed) and the stainless-steel demister pads are part of the reactor design. While recovering the product and reducing the temperature, they also reduce the emissions.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050028				
Permittee:	Western Farm Service	Facility ID No. 027-00089	Date Issued:	February 28 2006
Location:	Caldwell, Idaho	Facility 1D 110: 027-00009	Date Issued.	Teoluary 28 2000

# 2. **REACTOR NO.1 (10-34-0 REACTOR)**

#### 2.1 Process Description

The 10-34-0 Reactor was custom made by Unocal during the winter of 1985 – 1986. Superphosphoric acid (SPA), ammonia, and water are fed into the reactor at the rates of 1,620, 1,355, and 2,640 gallons per hour, respectively. 10-34-0 ammonium polyphosphate liquid fertilizer is generated at the rate of 4,810 gallons hour. Emissions from the reactor are exhausted to the atmosphere through two stacks located on top of the reactor vessel above the scrubber (packed bed) and the demister pads. All emissions are controlled.

#### 2.2 Emissions Control Description

A wet scrubber (a packed bed) and stainless-steel demister pads are integral components of the reactor design. Their primary design function is to optimize the recovery of the liquid fertilizer. As the wet scrubber and the demister pads recover the liquid fertilizer, they also reduce the temperature of the liquid fertilizer and control air pollutant emissions exiting the reactor stack. A reduction in the post-reaction vapor temperature provides for condensation of liquid fertilizer to optimize fertilizer recovery in the offgas stream. Two identical stacks are located on top of the reactor vessel, above the scrubber and demister pads. Emissions vent to the atmosphere through these stacks.

**Table 2.1 REACTOR NO.1 DESCRIPTION** 

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Reactor No.1 (10-34-0 reactor)	The wet scrubber (a packed bed) and the stainless-steel demister pads	Two identical reactor stacks

#### **Emissions Limits**

## 2.3 Emissions Limits

The PM<sub>10</sub> emissions from the reactor stacks shall not exceed 1.0 ton per any consecutive 12-month period.

## 2.4 Opacity Limit

Emissions from the reactor stacks, or any other stack, vent, or functionally equivalent opening associated with the reactor, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

#### **Operating Requirements**

## 2.5 Annual Operating Hours Limit

The permittee shall not operate the reactor more than 504 hours per any consecutive 12-month period. For the purposes of this permit, operate shall mean when liquid fertilizer is being produced or generated in the reactor.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050028				
Permittee:	Western Farm Service	Facility ID No. 027-00089	Date Issued:	February 28 2006
Location:	Caldwell, Idaho	Facility 1D No. 027-00089	Date Issueu:	redition 26 2000

## 2.6 Operations and Maintenance (O&M) Manual Requirements

Within 60 days of the permit issuance, the permittee shall have developed an O&M manual for the wet scrubber (a packed bed) and the stainless-steel demister pads using the manufacturer's specifications, operational experience, and information from source tests. The O&M manual shall describe the procedures that will be followed to comply with General Provision 2. The O&M manual shall contain at a minimum, the following information: a general description of the reactor, wet scrubber (a packed bed), and stainless-steel demister pads; a general discussion of the operation of the reactor; normal operating procedures; normal operating ranges; corrective action procedures when the reactor operates outside the normal operating ranges; and maintenance procedures and maintenance frequency. The O&M manual shall remain on site at all times and shall be made available to DEQ representatives upon request.

# 2.7 Reactor Operations

The permittee shall operate the reactor in accordance with the O&M manual.

## Monitoring and Recordkeeping Requirements

#### 2.8 Hours of Operation

The permittee shall monitor and record the number of hours the reactor operates monthly. The annual hours of operation shall be determined by summing each monthly hours of operation over the previous consecutive 12-month period to demonstrate compliance with Permit Condition 2.5. Records of this information shall be kept on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050028				
Permittee:	Western Farm Service	Facility ID No. 027-00089	Date Issued:	February 28 2006
Location:	Caldwell, Idaho	Facility ID No. 027-00089	Date Issued.	1 cordary 20 2000

#### 3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

- 1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
- 2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
- 3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
  - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and
    conditions of this permit, to inspect any monitoring methods required in this permit, and require
    stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the
    Director.
- 4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- 5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:
  - Initiation of Construction Date
  - Completion/Cessation of Construction Date
  - Actual Production Startup Date
  - Initial Date of Achieving Maximum Production Rate Production Rate and Date
- 6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-050028				
Permittee:	Western Farm Service	Facility ID No. 027-00089	Date Issued:	February 28 2006
Location:	Caldwell, Idaho	Facility 110 110. 027-00009	Daic Issueu.	1 cordary 28 2000

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

- 7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- 8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.